

# Reform Delivery Committee

Workshop 2 – 20 December 2021  
Distributed Energy Resources and Data Strategy



1. Introduction
2. Integration of DER & Flexible Demand
3. Data Strategy
4. Next Steps



# 1. Introduction

*The “NEM2025 Implementation Roadmap” is to establish a basis upon which AEMO and stakeholders may navigate the breadth of ESB reforms over the coming few years, de-risking delivery and informing implementation timing*

- In design of the NEM2025 Implementation Roadmap, the RDC aim to set out a program that:
  - Implements reforms in a timely and efficient manner
  - Co-ordinates regulatory and IT change
  - Provides transparency to stakeholders on the implementation program
- Following its inaugural meeting on 10 November, the RDC supported a workshop based approach over two rounds to develop V1 of the NEM2025 Implementation Roadmap
  - Round 1 (DEC 21): to understand the NEM2025 Initiatives and assess their impact
  - Round 2 (FEB 22): to assess bundling, sequencing and prioritisation pathways as part of Roadmap development

### Round 1 Workshops

Workshop 1 (13 DEC)	Workshop 2 (20 DEC)
Resource Adequacy Mechanisms	Distributed Energy Resources (DER)
Essential System Services	Data Strategy
Transmission and Access	



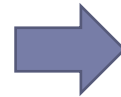
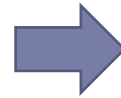
### WORKSHOP OBJECTIVES

Understand implementation initiatives to support ESB Reforms

Understand pre-requisite initiatives

Consider and understand strategic or tactical initiatives to facilitate reform outcomes – improving efficiency or reducing pain points

Assess and understand implementation impacts and requirements for AEMO, participants, consumers



### WORKSHOP APPROACH

- Overview of the reform workstream
- Identification of the implementation initiative and its relationship to the reform initiative
- Next level detail of the reform implementation initiative

- Identification and description of the pre-requisite (AEMO) initiatives

- Workshop discussion

- AEMO initial impact assessment
- Workshop discussion

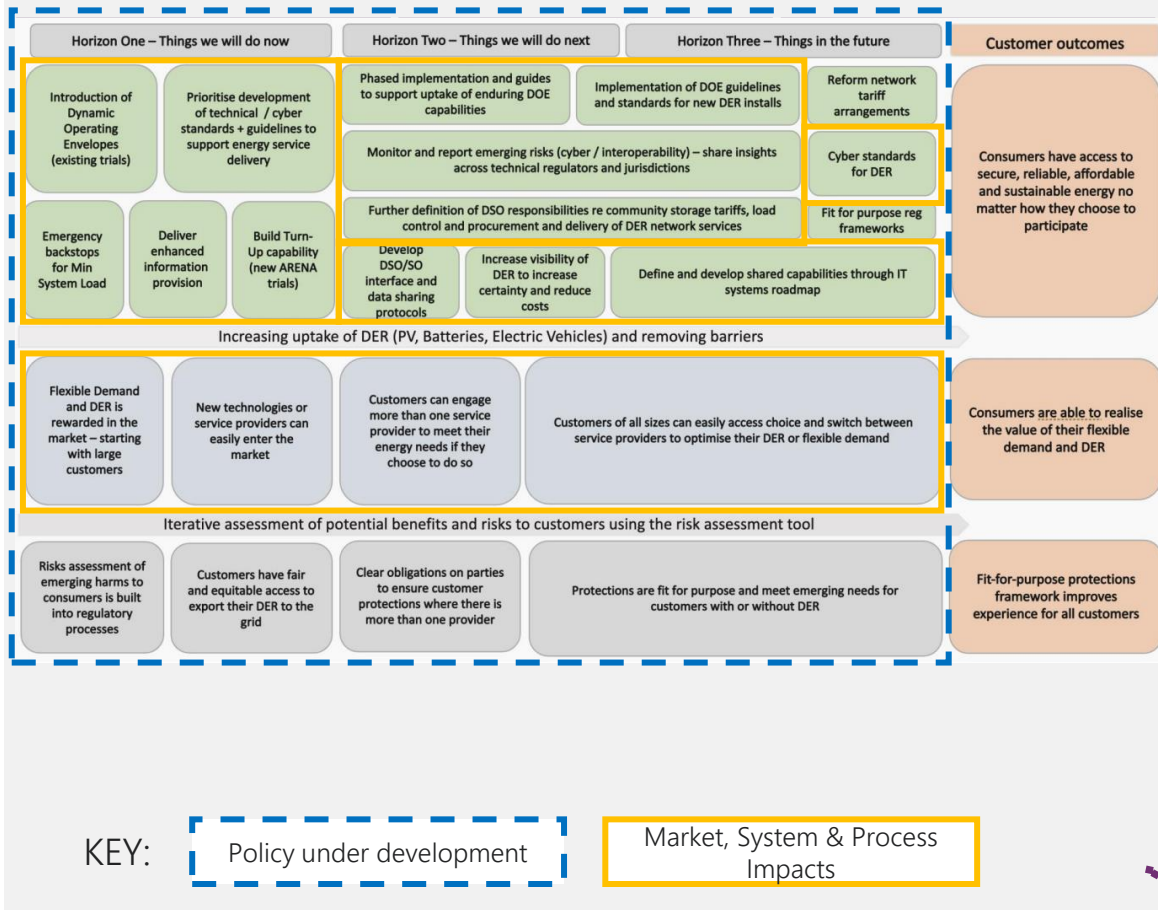
## 2. Integration of DER & Flexible Demand



# Integration of DER & Flexible Demand

## Reform Workstream Overview

### REFORM WORKSTREAM



### Objective:

- Establish frameworks that enable consumers to be rewarded for their flexible demand and generation, facilitate options for how they want to engage and remain protected by a fit-for-purpose consumer protections framework
- Establish wholesale market arrangements that support innovation, the integration of new business models and a more efficient supply and demand balance
- Establish networks with the ability to accommodate the continued update of DER, two-way energy flows, and manage the security of the network in a cost-effective way
- Provide AEMO with the visibility and tools it needs to continue to operate a safe, secure, and reliable system, including maintaining system security associated with low minimum system load conditions

### This means:

- We create new opportunities for consumers about how they receive and use energy and are rewarded for doing so flexibly

The DER Implementation Plan sets out activities across new and existing workstreams, including contributions from market and industry bodies

# Integration of DER & Flexible Demand

## Implementation Overview

- Initiatives under the integration of DER and Flexible Demand workstream are at varying stages of development ranging from final determination (IES) to ongoing concept and trial studies run by AEMO and industry stakeholders (e.g. ARENA)
- Despite this variation, and given the interlinkages among the initiatives, AEMO propose the *inclusion of all eight initiatives* within version one of the Roadmap. Initiative definitions represent a starting point, with evolution expected.

Reform Initiative	Status	System / Process Impacts	Inclusion in Roadmap (v1)	Comment
Integrating Energy Storage	Final Determination	Yes	Yes	• Final rule determination made 2 December 2021. Implementation proposed over two phases, March 2023: 'baseline' release containing new registration and dispatch models and May 2024: delivery of a 'final' release containing the full implementation.
Flexible Trading Arrangements (Model 2)	Rule change development	Yes	Yes	• AEMO to consider outstanding issues identified in ESB final recommendations and draft rule change request to implement FTA Model 2 for the AEMC's consideration
Scheduled Lite	High-level design	Yes	Yes	• AEMO has commenced high-level design discussions on both visibility & dispatchability models with stakeholders – aim to submit a rule change request 2022
Dynamic Operating Envelops	Concept / trial	Yes	Yes	• Aim to maximise efficiency of the network and increase access of consumers' distributed resources to the market.
Distribution Local Network Services	Concept / trial	Yes	Yes	• Aim is to improve efficiency of distribution networks through the use of customers' distributed energy resources. Project Edge seeks to trial this concept. DNSPs would enter into commercial and technical arrangements with DER owners.
Turn-up Services	Concept / trial	Yes	Yes	• Scope dependent on alternative design consideration for example amendments to WDR, RERT or provision of rice signal for flexible load and generation (Loadation)
DER Platform Registry Services	Concept / trial	Yes	Yes	• Central platform for data exchange across industry to facilitate among other services switching and interoperability
Market and System Operator Integration	Concept	Yes	Yes	• Next iteration of the Scheduled Lite providing for further integration of DER into AEMO's scheduling, reliability and security processes and systems



### OVERVIEW

- Evolve the NEM framework to support energy storage participation and facilitate hybrid systems (i.e. mixed generation technologies, e.g. solar + batteries) to support the transition towards variable renewable energy
- Establish Integrated Resource Provider (IRP) registration category to a) allow storage and hybrids to register and participate in a single registration category and b) allow aggregators for small generators to register as an IRP, and provide ancillary services



### SCOPE

- Major IT related changes to AEMO / participant systems / models (e.g. registrations, dispatch and operations, metering and settlement systems). Minor IT related changes to AEMO systems to integrate new participant category across market systems
- Updates to relevant AEMO / participant policies, processes, guidelines (e.g. registrations, non-energy cost recovery settlement)

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations	New			
Integrated Energy Storage Systems	Yellow	Green	Orange	Green	Green	Orange	Green	Yellow	Yellow	Red	Yellow	Yellow

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

# Integration of DER & Flexible Demand

## Flexible Trading Arrangements (Model 2)

### OVERVIEW

- Establish FTA facilitating separation of controllable loads and generation (e.g. solar PV, pool pumps) from uncontrollable resources - customers may then choose additional energy services for their flexible demand or generation while remaining on their current retail plan
- FTA Model 2 - Establish a specific category of connection arrangement, a Private Metering Arrangement (PMA), enabling a NMI to be established within a customer's electrical installation



### SCOPE

- Draft rule change request to implement FTA Model 2
- IT related changes to AEMO / participant systems / models and reports (e.g. registration, metering and settlement systems)
- Updates to relevant AEMO / participant policies, processes, guidelines (e.g. registration and accreditation, metering, consumer protections)

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations	New			
Flexible Trading Arrangements (Model 2)												

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

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### OVERVIEW

- To establish an 'opt-in' framework through lowering barriers and providing incentives for flexible demand, aggregated portfolios of DER and small generation resources (between 5 MW and 30 MW) to either:
  - provide greater visibility to the market operator about intentions in the market, or
  - to participate in dispatch of energy and ancillary services.



### SCOPE

- SOW subject to design option implemented (i.e. Visibility, Dispatchability)
- Visibility model may include amendments to AEMO systems processes e.g. registration, ST PASA processes, demand forecasting systems / processes, control room displays and tools
- Dispatchability model builds on the visibility model and may include amendments to dispatch and pre-dispatch systems, bidding interfaces, compliance monitoring and reporting, settlement and prudential systems.

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations					
Scheduled Lite	Green	Orange	Yellow	Green	Green	Orange	Yellow	Green	Green	Green	Green	Green	Green

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

- Aim to maximise efficiency of the network and increase access of consumers' distributed resources to the market.
- Dynamic limits for customers distributed energy resources



### SCOPE

- DER technical standards (e.g. communications and interoperability)
- IT systems to receive DOE information from DNSPs / DSO to permit for use in market applications and processes
- Procedures to guide the communication of DOEs to AEMO

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations	New			
Dynamic Operating Envelopes												

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

- DNSP / DSO and aggregators of DER to exchange information about network service requirements, and capabilities of aggregated DER portfolios
- Assumption is that transactions are executed and settled between DNSP / DSO and market participant.



### SCOPE

- Interface to allow DNSP / DSO to advertise information about network service requirements. Interface would also allow market participants to respond to DNSP / DSO on the capability of their portfolio to meet the service requirement.
- New procedure to cover the use of the interface by DNSPs / DSO and market participants.
- Scheduling and settlement of local services out of scope

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations	New			
Distribution Local Network Services												

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

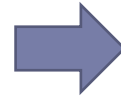
What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

- Establish a mechanism to support flexible demand to shift during critical times of the day by increasing the capability and capacity of load to respond to low or negative price signals during times of abundant variable renewable energy.
- Provide a mechanism to facilitate a market response during periods of minimum system load (MSL).



### SCOPE

- SOW subject to design and trial outcomes
- IT related changes to AEMO / participant systems / models (e.g. registrations, dispatch and operations, metering and settlement systems)
- Updates to relevant AEMO / participant policies, processes, guidelines (e.g. registrations, non-energy cost recovery settlement)

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others	
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations	New				
Turn-up Services													

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

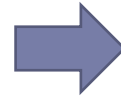
What time period would be required to implement?

Is this seen as a high complexity implementation?



### OVERVIEW

- Platform for data exchange between DSO / DNSPs, aggregators of DER and AEMO
- Enhanced registry services including owner and participant identity and switching services



### SCOPE

- Enhanced registry systems and integration of DER register with core market systems
- Processes to maintain accurate registry information
- Procedure amendments to govern maintenance of DER registry information and its integration with core market systems

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations					
DER Platform Registry Services													

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

- Continued integration of DER into AEMO's scheduling, reliability and security processes and systems



### SCOPE

- SOW subject to various policy and reform initiatives (Scheduled Lite, Flexible Trading Arrangements)
- Various IT related changes to AEMO / participant systems / models could include: dispatch, PD, FCAS, demand forecasting, operational tools and interfaces,
- Updates to associated AEMO system operation related policies, processes, guidelines

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations	New			
Market and System Operator Integration												

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

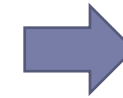
What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### Overview

P2286	Business Rules Engine	An internal technology capability within which to define business rules and processes. Core market platforms will leverage this capability as a foundation building block.
P2062	Portal consolidation	A single pane of glass user experience for participants accessing all AEMO browser based services.
P2262	Identity & Access Management	A unified mechanism to authenticate participant users and applications when accessing AEMO services.
P2264	Industry Data Exchange	Unified access to AEMO services across all markets using modern authentication and communication protocols. This initiative will leverage P2262 – IDAM.
P2051 & P2279	CoMaStR & FRC Target state	An internal master data management platform hosting information about power system asset data (e.g. NMI standing data, DER devices) used by AEMO market systems.
P2283	Scada Light	A low cost mechanism to support telemetry services.



### SCOPE

- Improved ability to deliver changes to market platforms faster and more cost effectively
- Improved user experience for market participants
- Simplify access mechanisms to AEMO markets
- A single and consistent view of power system asset data across AEMO forecasting, operations and markets processes
- Improve access to telemetry services for smaller participants

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Other
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations	New			
Dependent Initiatives												

### QUESTIONS FOR COMMITTEE MEMBERS

Are significant impacts to participant systems and processes foreseen, or are these initiatives are internal to AEMO?

Do Committee members have specific pain points in these areas that should be considered?

Do Committee members believe such initiatives should be included in the Roadmap?

# Implementation Impacts

## Summary Market and System Operations Impacts

- AEMO’s initial assessment shows some systems are heavily impacted by multiple reforms – key functions include registration, settlements and system operation tools and interfaces
- Many of the changes will require:
  - Consideration of the lifecycle state of the underlying systems
  - Coordination and need to be sequenced / bundled for efficient delivery
- AEMO anticipate similar impacts to participants systems and processes

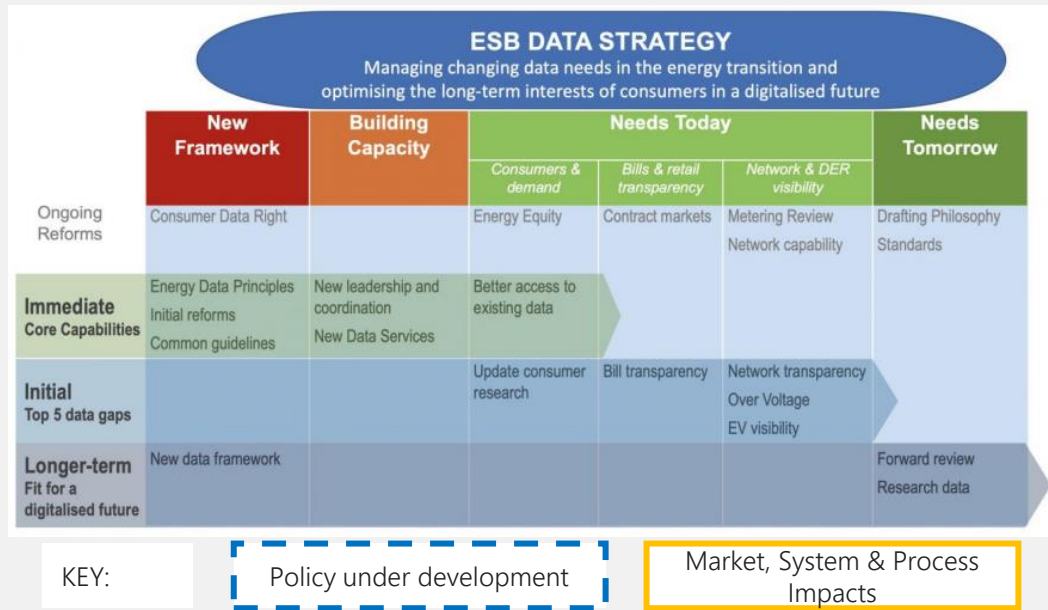
A potentially useful tool to understand and represent participant or consumer impacts could be a similar (high-level) business function framework by participant/consumer type?

Reform initiative	Wholesale									New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations					
Integrated Energy Storage Systems	Yellow	Green	Orange	Green	Green	Orange	Green	Yellow	Yellow	Red	Yellow	Yellow	
Flexible Trading Arrangements (Model 2)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Orange	Green	Green	
Scheduled Lite	Green	Orange	Yellow	Green	Green	Orange	Yellow	Green	Green	Green	Green	Green	
Dynamic Operating Envelopes	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	
Distribution Local Network Services	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Turn-up services	Yellow	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	
DER Platform Registry Services	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Market and System Operator Integration	Green	Green	Green	Green	Green	Green	Green	Orange	Yellow	Green	Green	Green	

# 3. Data Strategy

### REFORM PATHWAY

Immediate reforms	Initial Reforms	Long-term Reforms
<p>Governance foundation</p> <p>Regulatory barriers to sharing data</p>	<p>Design, cost and implement priority data recommendations</p>	<p>Design new fit for purpose legislative framework adaptable in rapidly evolving digitalised future</p> <p>Ongoing reassessment of data priorities across reforms</p>



### Objective:

- Establish framework with new guiding policy principles and regulatory reforms to remove existing barriers to better consumer outcomes, support safer data management, and ensure frameworks are fit-for-purpose in a future energy market.
- Build capability: Building leadership, coordination and capability across agencies and stakeholders, to better manage data growth, grow value from analytics and support the data services the market needs.
- Address priority data gaps: Filling gaps in current data sets, critical to support the needs today of better planning, evolving services and robust consumer protections.
- Forward planning and adaptability: Introduce regular proactive review and planning to meet needs tomorrow, timely standards, flexibility in data arrangements, and facilitating early needs for research and innovation.

### This means:

- We provide ongoing support for changing data needs over time, with coordination of proactive reviews to identify and address emerging and future priority data gaps and capabilities. All guided by a new framework which sets clear principles and safe but flexible requirements.

Note work on priority data gap initiatives is to develop the design and feasibility only.



Initiatives under the Data Strategy workstream are predominantly in the early stage of development, engaging with stakeholders to resolve scope and developing costed options for funding consideration by jurisdictions in 2022.

These initiatives are supported by the establishment of a governance framework for data priorities and a set of initial regulatory reforms to reduce barriers to safely sharing data.

Reform Initiative	Status	System / Process Impacts	Inclusion in Roadmap (v1)	Comment
Data Services	Scoping and implementation options	Yes	Yes	<ul style="list-style-type: none"> <li>An initiative to provide a capability supporting access to information. Not a dependency for other 2025 initiatives.</li> </ul>
EV Charger Standing Data Register	Assess implementation options	Yes	Yes	<ul style="list-style-type: none"> <li>Strong linkages with other DER register projects and engagements with DEIP</li> </ul>
Bill Transparency	Scoping and implementation options	Yes	Yes	<ul style="list-style-type: none"> <li>Dependency on Consumer Data Right program to establish data standards on tariff and billing information.</li> </ul>
Network Transparency	Scoping and options	Yes	Yes	<ul style="list-style-type: none"> <li>Linkages with the DER projects on Distribution local services and Dynamic Operating Envelopes</li> <li>Likely to work closely with the AER Regulatory Information Notices (RIN) process.</li> </ul>
Over Voltage	Research /Scoping	To be determined	No	<ul style="list-style-type: none"> <li>Too early to understand any system or process impacts</li> </ul>

### OVERVIEW

To develop organisational and funding models to support new data services and analytics. This aims to facilitate better access and use of protected data held by market bodies by a range of stakeholders. The intent is establishing a capability to address the complexity of managing and linking ever increasing data-sets to produce access and relevant information or services.



### SCOPE

Envisaged to be broad, examples including:

- shared resources - such as dashboards, metrics or reports for multiple users or the public/market
- facilitating sharing of protected data where appropriate
- tailored aggregated data sets or advanced data analytics on request

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale								New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations				
Data Services												

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

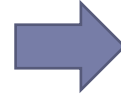
What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

An opportunity is to address critical gaps in consumer protections, as services become more complex, by allowing for better understanding of:

- how different consumer segments, including vulnerable consumers, are impacted by new technologies and services;
- the effectiveness of reforms and competitive retail markets.



### SCOPE

- Options for reporting consumer bill outcomes, engaging closely with stakeholders to provide a statistically robust, source of data on what consumers are actually paying
- Identify streamlining opportunities across existing retail reporting and synergies with reforms such as the Consumer Data Right.

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations					
Bill Transparency	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Green

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

- There is no clear owner of EV data within the energy sector. AEMO has a need for EV data in forecasting, but this is currently not available. Networks and research projects are all seeking their own data sources.
- The opportunity is to provide a solution for reporting installation, location, and characteristics of electric vehicle supply equipment (chargers).



### SCOPE

- Work with stakeholders including DEIP EV task groups to consider related options and recommendations to establish a minimum viable product for an Electric Vehicle Supply Equipment standing data register under the existing electricity rules and regulatory frameworks.
- Wider consideration of EV forecasting options, including shared approaches with the transport sector.

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations					
EV Charger Standing Data Register													

### QUESTIONS FOR COMMITTEE MEMBERS

What are the key impacts to participant systems and processes?

What are the key challenges and risks associated with the delivery of these reforms?

What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

Optimising DER integration requires greater visibility of the low voltage network, with needs for networks, network service providers, DER investors/service providers, consumers, and regulators to all manage risks around network and DER capacity and emerging constraints.



### SCOPE

- Create an efficient path to the shared network data needed to optimise DER and inform decisions of DER providers, consumers, and regulators
- Design and cost options to optimise network data available to the DER market, including: a review of data use cases and definitions, review and publish relevant existing low-voltage network data.

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									New	Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causar Pays	System operations					
Network transparency													

### QUESTIONS FOR COMMITTEE MEMBERS

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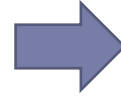
What time period would be required to implement?

Is this seen as a high complexity implementation?

### OVERVIEW

Estimate the benefits of addressing over-voltage in local networks, including through research on impacts such as damage to consumer equipment, losses and reduced DER constraints.

Aims to support efficient investment in network monitoring and voltage management systems



### SCOPE

- Undertake initial scoping or estimates of benefits based on existing research.
- Develop a proposed package of research to resolve areas of uncertainty, such as on appliance impacts, for consideration of appropriate funding paths. This should include consultation with relevant research groups.

### AEMO Initial System / Process Impact Assessment

Reform initiative	Wholesale									Retail	DER	Others
	Registration	Offers	Dispatch	Constraints	PASA	Settlements Billing & Prudentials	Causer Pays	System operations	New			
Over-voltage												

### QUESTIONS FOR COMMITTEE MEMBERS

Do Committee members agree this initiative should not be included in V1 Roadmap?



# 4. Next Steps

Proposed actions	Responsibility
AEMO follow-up feedback/actions arising from Workshop 1 and 2	AEMO
Committee members reflect on "Committee Questions" as set out in the pack and engage with constituencies as required. Provide additional feedback to AEMO and Committee – by 23 December	Committee members
Committee members consider prioritisation, interdependencies, and sequencing of initiatives to leverage synergies and manage risks and cost in preparation for roadmap development workshops in February 2022.	All

# See you next at...

## Workshops

- Round 2 Workshops: February TBA

## Committee meetings

- Meeting 2: Mon 21 Feb 2022
- Meeting 3: Mon 21 Mar 2022

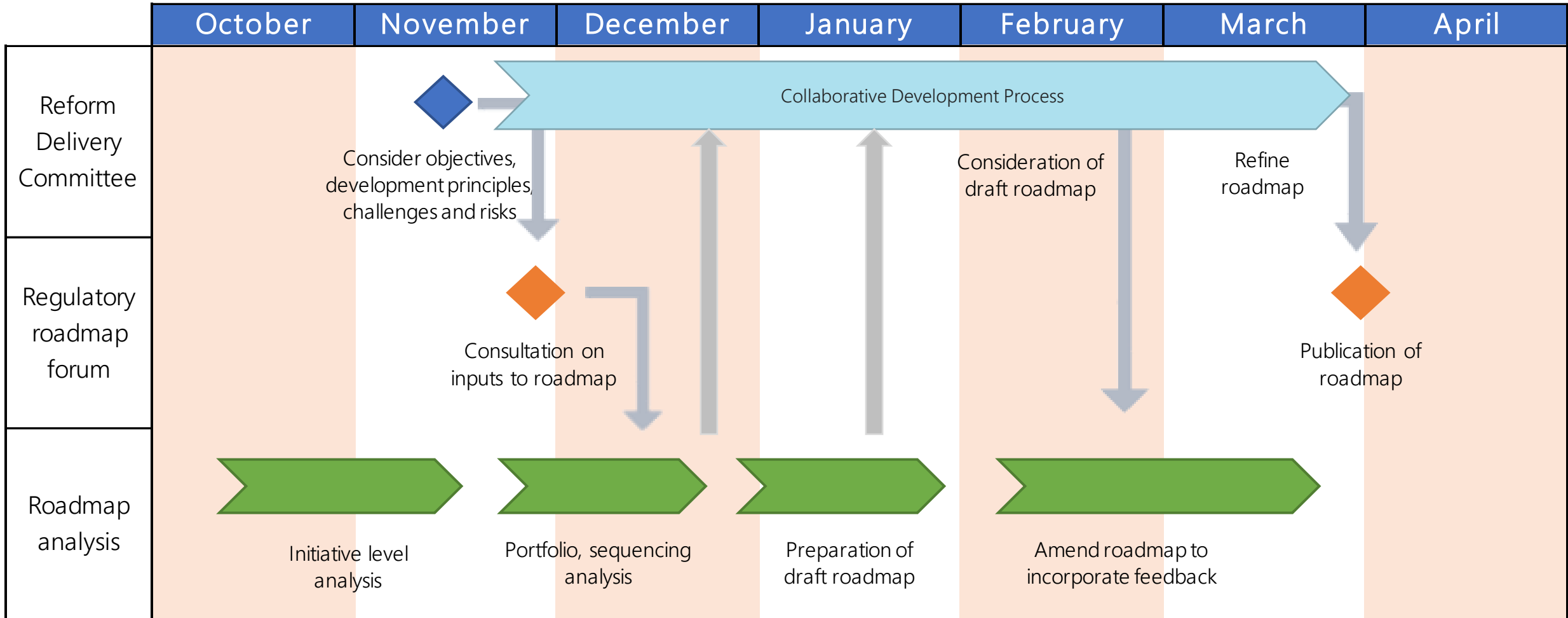
*For more information*  
please visit [www.aemo.com.au](http://www.aemo.com.au)

# Appendices

Workstream	Reform Initiative	Reference (ink to rule change or market review, or latest ESB publication)
DER	Integrating Energy Storage	<a href="https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem">https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem</a>
	Flexible Trading Arrangements (Model 2)	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a> <a href="https://www.datocms-assets.com/32572/1629945838-post-2025-market-design-final-advice-to-energy-ministers-part-c.pdf">https://www.datocms-assets.com/32572/1629945838-post-2025-market-design-final-advice-to-energy-ministers-part-c.pdf</a>
	Scheduled Lite	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a>
	Dynamic Operating Envelops	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a>
	Distribution Local Network Services	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a> <a href="https://aemo.com.au/en/initiatives/major-programs/nem-distributed-energy-resources-der-program/der-demonstrations/project-edge">https://aemo.com.au/en/initiatives/major-programs/nem-distributed-energy-resources-der-program/der-demonstrations/project-edge</a>
	Turn-up Services	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a>
	DER Platform Registry Services	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a>
	Market and System Operator Integration	<a href="https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf">https://www.datocms-assets.com/32572/1629945809-post-2025-market-design-final-advice-to-energy-ministers-part-b.pdf</a>
Data Strategy	Data Services	<a href="https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf">https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf</a>
	EV Charger Standing Data Register	<a href="https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf">https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf</a>
	Bill Transparency	<a href="https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf">https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf</a>
	Network Transparency	<a href="https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf">https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf</a>
	Over Voltage	<a href="https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf">https://www.datocms-assets.com/32572/1630275857-esb-data-strategy-july-2021.pdf</a>

# Appendix B

## Roadmap timeline



Objective is to deliver the NEM2025 Implementation Roadmap by end-March.